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## Hybrizontinae (Hymenoptera, Ichneumonidae), a new subfamily for the fauna of Turkey

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**A b s t r a c t :** *Hybrizon buccatus* (DE BREISSON, 1825) is *redescribed*, figured and reported for the first time from Turkey. Also, new localities of the species from Bulgaria are given.

**K e y w o r d s :** Hybrizontinae, *Hybrizon buccatus*, new records, Turkey fauna.

### Introduction

Hybrizontinae is a small subfamily with 3 recent valid genera (*Eurypterna* FOERSTER, 1862; *Ghilaromma* TOBIAS, 1988 and *Hybrizon* FALLEN, 1813) and 13 species, distributed in Palaearctic and Holarctic region. Traditionally the subfamily has been included in the family Braconidae because of the reduction of venation of the front wing (FÖRSTER 1862 as Paxylommatoidae; TOWNES 1969; SHENEFELT 1969 as Hybrizoninae; ČAPEK 1970 as Paxylommatinae; VAN ACHTERBERG 1976a, 1976b as Hybrizontinae). Other authors treat the group as separate family (TOBIAS 1968, 1988; MARSH 1989; KASPARYAN 1988a; 1988b as Paxylommatidae; MARSH 1979; as Hybrizontidae) or subfamily in Ichneumonidae (KONISHI et al. 2012). Detailed discussion on history of the group position can be found in VAN ACHTERBERG (1999). The analysis of the 28S ribosomal RNA from *Hybrizon* suggests that the Hybrizontinae are at very basal position of the Ichneumonidae-lineage (BELSHAW et al. 1998; QUICKE et al. 2000; BELSHAW & QUICKE 2002).

The subfamily can be distinguished from other ichneumonids by follow: front wing 2-3 mm long; antenna with about 13 segments; head in front view strongly tapered ventrally; anterior tentorial pits large and prominent; clypeus small, elongate and strongly convex; mandible small and usually obscured by prominent maxilla; mesosoma short and high; sternaulus absent; coxae long and slender; tarsomere 1 of front leg about 2.0 as long as tarsomeres 2-4; propodeum usually with only median longitudinal carina present; front wing without areolet, with second to fourth abscissae of vein M appearing to originate from cell 2R1; 2-Rs and 3r-m veins absent; hind wing with vein 1r-m opposite separation of veins R1 and Rs; metasomal segment 1 cylindrical, with tergum 1 and sternum 1 of equal length; glymma absent; spiracle at the middle; ovipositor about as long as apical depth of metasoma, without apical dorsal notch (WAHL 1993).

Key to the recent genera was proposed by TOBIAS (1988, 2000) and VAN ACHTERBERG (1999). For a key to the fossil genera, see KASPARYAN (1988a).

Hybrizontinae are endoparasitoids of Formicidae genera *Formica* L., *Lasius* F., *Myrmica* LATREILLE and *Tapinoma* FÖRSTER (YU et al. 2012). Detailed history of larval parasitism of *Hybrizon buccatus* on the ant *Lasius grandis* FOREL, 1909 can be found in DURÁN & VAN ACHTERBERG (2011). Probable parasitism on *Lasius* (*Lasius*) *japonicus* SANTSCHI was reported by MURAKAMI (1968).

Until now the subfamily was not found in Turkish fauna. In the materials from Turkey we found some specimens of *Hybrizon buccatus* and the species is redescribed below. The subfamily, genus and species are first records for Turkish fauna. New localities of the species from Bulgaria are presented.

### Material and Methods

The Ichneumonidae specimens were collected by insect nets and Malaise traps. Materials are preserved in the collection of the University of Plovdiv (Bulgaria). General distribution is given after YU et al. (2012).

### Results

#### *Hybrizon buccatus* (DE BREBISSE, 1825)

*Paxylomma buccata* DE BREBISSE, 1825: 23. Type lost.

**Redescription:** Front wing 2.9 mm, body 3.6 mm, ovipositor sheath 0.4 mm long (Figure 1). Head transversal, strongly narrowed behind, 2.25 as wide as long (Figure 2a). Ocelli large and prominent, its diameter almost twice (7:4) as long as distance between lateral ocellus and eye. Eye without hairs. Occipital carina connected hypostomal carina far from the base of mandible. Scapus somewhat shorter than pedicellus. Flagellum 11 segmented, first segment 8.6 as long as wide and last segment 5.5 as long as wide. Inner eye orbit strongly convergent downwards. Face almost square. Clypeus naseform. Front tentorial pits large. Mandible small and obscured by prominent maxilla (Figure 2b).

Mesosoma very short, 0.9 as long as high. Epomia and sternaulus absent. Mesonotum wider than long (15:14). Notaulus not developed, but on its place mesonotum with pair of bands of distinct punctures. Prescutellar groove deep and large (Figure 2c). Scutellum carinated only basally. Prepectal carina strong but developed only ventrally. Mesosternum bilobed, with deep mesosternal suture. Postpectal carina absent. Basal cell of front wing largely glabrous, with at most of 15 setae. First radial vein in front wing issued close to base of pterostigma (Figure 2d). Hind wing with 3 distal hamuli. Legs very slender, hind tarsal segments swollen. Hind coxa about 7.0 as long as wide in lateral view. Hind femur about 9.0 as long as wide (Figure 2e). Correlation between length of hind tarsal segments as 35:12:8:5:6. Propodeum with longitudinal dorsal and pleural carina well developed (Figure 2f). Lateral carina as a trace on the middle. Propodeal spiracle elongated, closer to lateral than to pleural carina. Abdominal hole of propodeum separated from hind coxa sack by wide space.

Metasoma with first segment 0.5 as long as second tergum. Apical half of postpetiolus and second tergum on basal half coarsely striated longitudinally (Fig. 2g). Second and

third metasomal terga connected flexibly. Apical half of metasoma compressed. Ovipositor gradually tapered to apex, without subapical dorsal notch.

Head and lateral parts of face with granulate sculpture. Mesonotum and scutellum smooth with very rare punctures. Lower half of mesopleuron and metapleuron shagreened.

Black brown; scapus and pedicellus from below, clypeus, palpi, tegula, front and middle coxa and hind coxa from below whitish yellow; legs including upper surface of hind coxa red brown.

Male. Head except face and propodeum dark brown. In other as in female.

**Material examined:** Turkey: Isparta, Sav, 1100 m, 16.X.2002, 4♂♂; Hatay: Kengerliduz, 1625 m, 21.VII.2007, 2♀♀.

**Additional material:** Bulgaria: Kalofer, Enina, 600 m, 26.VII.2000, 5♀♀, Vitosha Mt., Bosnek vill., 940 m, 30.V-28.VI.1999, 1♀, 8-22.VI.1999, 1♀; 15.VI.1999, 5♀♀, 26.VI-3.VII.1999, 1♀, 16.VII.1999, 7♀♀, 22-29.VII.1999, 1♀; 25.VII.1999, 4♀♀; 4.VIII.1999, 2♀♀, 4-10.VIII.1999, 2♀♀, 10-18.VIII.1999, 3♀♀, 28.VIII-4.IX.1999, 1♀, 4-11.IX.1999, 1♀, Vitosha Mt., Simeonovo, 12.V.1987, 1♀; Plovdiv: 29.VIII.1989, 1♀, Klisura, 5.VII.1987, 1♀, Rhodopi Mt., Madjarovo, 200 m, 8.V.2000, 2♀♀, 15.V.2000, 5♀♀; Strandja Mt., Vitanovo, 7.06.2000, 1♀, 14.VI.2000, 1♀, 20.VII.2000, 2♀♀, 27.VII.2000, 3♀♀, 02.VIII.1999, 1♀; 18.VIII.2000, 5♀♀; 12.IX.2000, 1♀, Razgradski heights, Trubatch vill., 19.VI-3.VII.1999, 1♀.

**General distribution:** Palaearctic region.

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### Zusammenfassung

*Hybrizon buccatus* (DE BREISSON, 1825) (Hymenoptera, Ichneumonidae) wird redeskribiert, grafisch abgebildet und erstmalig für die Türkei gemeldet. Ergänzt wird die Arbeit durch neue Funddaten aus Bulgarien.

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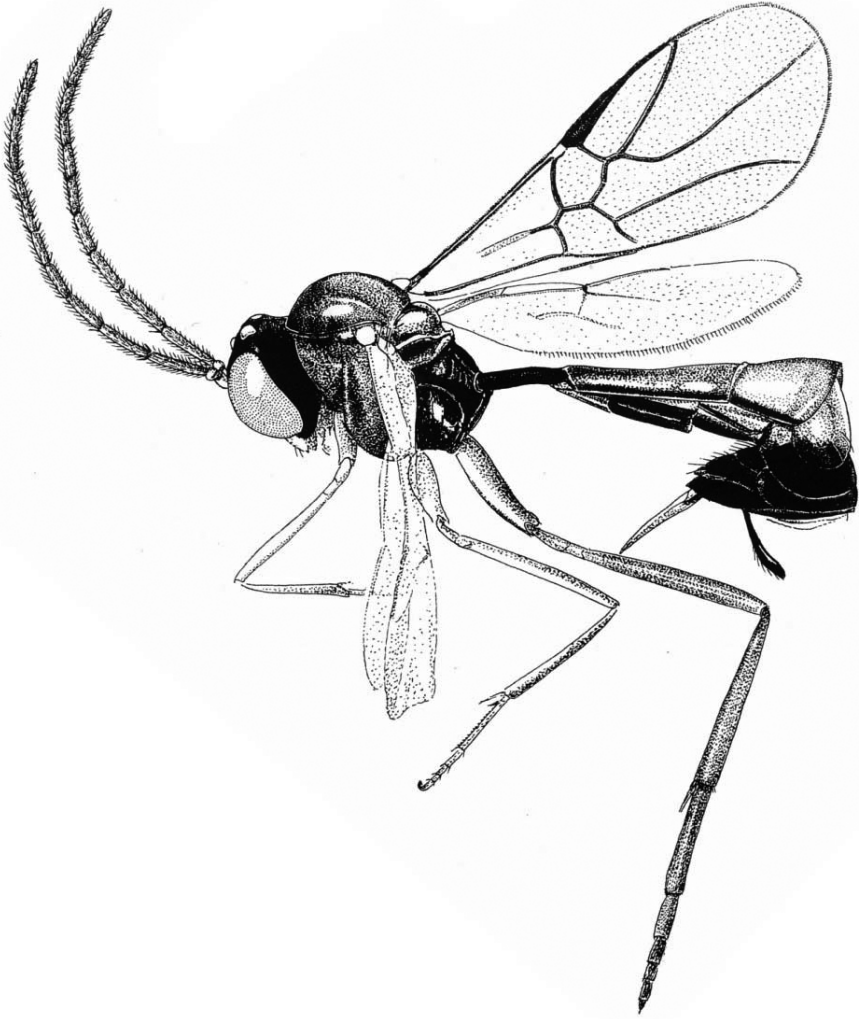
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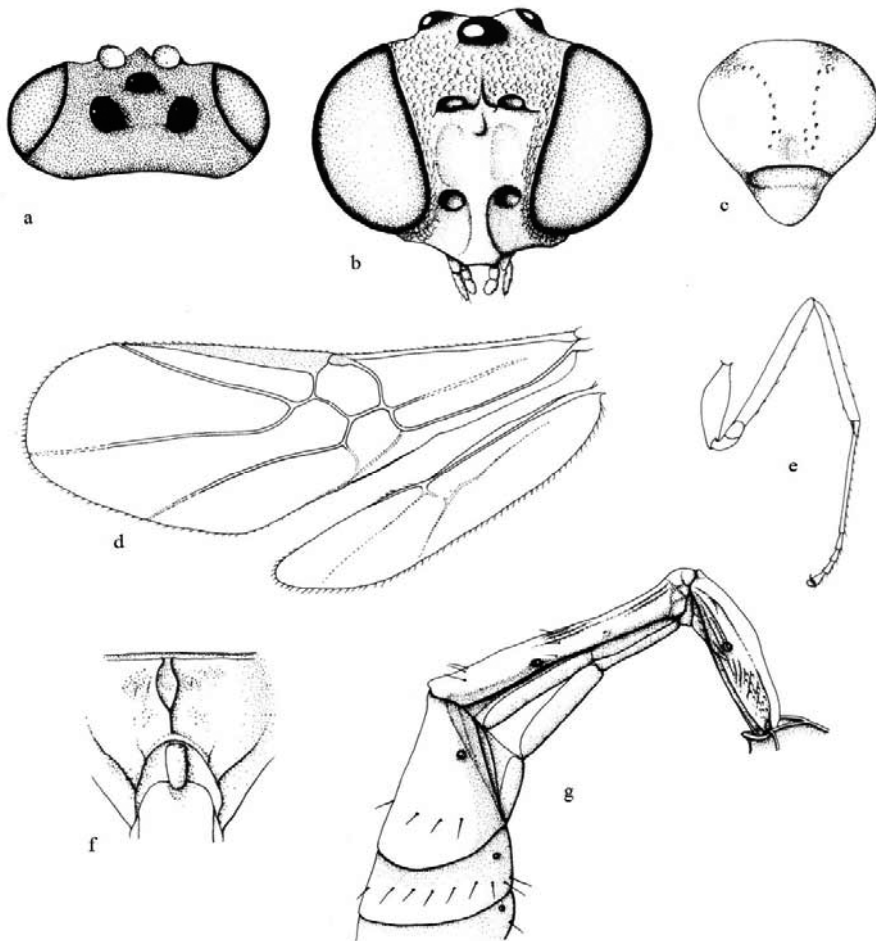
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**Fig 1:** *Hybrizon buccatus* DE BREISSON (ACHTERBERG C. VAN, 1999).



**Fig 2:** *Hybrizon buccatus* DE BREBISSE. (a) head from above; (b) head in front; (c) mesonotum and scutellum dorsally; (d) wings; (e) hind leg; (f) propodeum; (g) front part of metasoma, lateral view (ACHTERBERG 1999).